Springdale Fire Department
Policy & Procedures Manual
Volume 2 – General Operations
Section 201 –Personnel Safety
201.10 – Roadway Operations

It shall be the policy of the Springdale Fire Department to position emergency vehicles at roadway incidents on any street, highway or interstate in a manner that best protects the incident scene and the work area. Such positioning shall afford protection to emergency personnel, victims, and occupants of other vehicles when emergency operations are conducted in or near moving traffic.

All personnel are exposed to high risk when operating in or near moving traffic. This procedure identifies individual practices designed to improve personnel safety.

Personnel operating in or near moving traffic should always be aware of the following:

Every roadway emergency scene exposes personnel to risks associated with motorists whose driving abilities vary. Motorists may be vision impaired, under the influence of alcohol and or drugs, or have medical conditions that affect their judgment or abilities. Motorists may be inexperienced and or driving without a valid driver's license. Approaching motorists will often be looking at the emergency scene and not the roadway in front of them. Additionally, motorists may be distracted due to the use of cell phones, listening to loud music, or conversing with passengers. Speeds of approaching vehicles will range from that of a creeping pace, to well beyond the posted speed limit. Driver visibility may be reduced due to inclement weather, terrain and or other obstructions. Driver reaction time increases significantly in relation to the driver's visibility, therefore, night-time operations in or near moving traffic are particularly hazardous to personnel.

Common Terminologies

The following terms shall be applied to roadway incident operations:

Directional Orientation- "Right" and "Left" shall be identified from the approaching motorist's point of view (driver's side = left)

Lanes of traffic- identified numerically as "Lane 1", "Lane 2", "Lane 3", Center "Turn Lane", etc. beginning from the right to the left as considered from the approaching motorist's point of view, typically, vehicles travel lower speeds in the lower number lanes

Upstream- the direction that traffic moves as it approaches the incident scene

Downstream- the direction that traffic moves as it travels away from the incident scene

Median & Shoulder- the median is the area between the left-most lanes of traffic, the shoulder is identified as the area to the right of lane 1. Directions should be included in this description (North bound shoulder = Right side of northbound lane 1)

Block- positioning fire department apparatus at an angle to open lanes of traffic to create a physical barrier between upstream traffic and the work area (includes block to the right or block to the left)

Buffer Zone- the area between moving traffic and the protected work zone where emergency personnel and involved vehicles are located

Shadow- the protected work area at a roadway incident that is shielded by the block created by apparatus and other emergency vehicle placement

Protected Work Zone- the physical area of a roadway within which emergency personnel perform fire, EMS, and rescue tasks at a roadway incident

Advance Warning- use of warning devices to advise approaching motorists to transition from normal driving status to temporary, emergency traffic control measures ahead of them

Taper- action taken (by warning devices or mechanisms) to merge several lanes of moving traffic into fewer lanes

Apparatus and Emergency Vehicle Positioning

Objectives of emergency vehicle positioning when operating in or near moving traffic are:

- Establish an initial block with the first arriving emergency vehicle in a position to protect the scene, patients, and emergency personnel
    - Initial apparatus placement should provide a work area protected from at least one direction of approaching traffic.
    - Apparatus should block to the left or block to the right to create a physical barrier between the scene and approaching traffic.
    - Apparatus placement should serve to slow approaching motorists and redirect them around the scene.
    - Additional apparatus should block at least one additional traffic lane above what is already obstructed by the involved vehicle(s).
    - When practical, apparatus should be positioned to protect the pump operator position from being exposed to approaching traffic
- Position large apparatus to create a safe parking area (shadow) for squads and other fire department vehicles. Operating personnel, equipment, and patients should be kept within the shadow created by the blocking apparatus at all times.
- Squads should be positioned within the protected work area with their rear patient loading door area angled away from the nearest lanes of moving traffic.
- Sources of vision impairment to approaching motorists should be turned off at nighttime incidents. These include white emergency lighting, particularly headlight flashers, rotating white lights and white strobe lights as well as vehicle headlights.
- Apparatus placement should protect the emergency scene, establish a work zone of sufficient size to include all damaged vehicles, roadway debris, the patient triage and treatment area, the extrication work area, personnel and tool staging areas, and the squad loading zone.
- Police vehicles should be utilized to assist in directing the flow of moving traffic.
- Establish advance warning and traffic control measures upstream of the incident to warn approaching motorists.

- Command shall stage unneeded emergency vehicles off the roadway or return these units to service whenever possible.

At intersections, or where the incident is near the middle lane of the roadway, two or more sides of the incident will need to be protected.

- Consider requesting additional police assistance. Provide specific directions to the police officers of exact traffic control needs. Police vehicles must be strategically positioned to expand the initial protected work zone from traffic that is approaching from opposing directions. The goal is to effectively block all exposed sides of the work zone.
- Blocking to create the protected work zone must be prioritized, starting with the upstream most critical or highest traffic volume flow to the upstream least critical traffic flow.
    - When a charged hose-line may be placed in operation, the engine or truck company should block in a manner that the pump panel is down stream, on the opposite side of on-coming traffic.
- When indicated, traffic cones should be deployed, starting at the blocking apparatus upstream, to increase the advance warning provided to approaching motorists.
    - Personnel shall place cones and retrieve cones while facing oncoming traffic.
    - Traffic cones shall be deployed at 15-foot intervals upstream of the blocking apparatus.

Incident Command Responsibilities

The Incident Commander must assure a safe and protected work environment is established and maintained. This responsibility includes:

- Assuring that the first-arriving emergency vehicle establishes an initial block to create an initial protected work area.
- Assigning parking locations for all squads as well as later-arriving apparatus.
- Instructing squads to block to the right or block to the left so that the rear patient loading area is away from the closest lane of moving traffic.
- Assuring that on-scene squads are parked within the protected work area (shadow) of the larger apparatus.
- Assuring that during nighttime operations apparatus headlights and white emergency lights are turned OFF, and that other emergency lighting remains ON.
- Assuring when possible, squads and engines at residential medical emergencies park at the nearest curb to the residence for safer patient loading.
- The Incident Commander must also serve as the Scene Safety Officer until such time as the Safety Officer position is delegated or assumed.

Personnel Safety

All personnel should take the following steps to protect themselves and others at the incident scene:

- Personnel should never turn their back to approaching traffic.

- Department issued high visibility reflective vests shall be worn during all roadway operations, except during actual firefighting activities.
- Structural firefighting helmets shall be worn during all roadway operations.
- Full structural protective clothing, including reflective vests, shall be worn at all extrication operations.
- Always maintain an acute awareness of the high risk of working in or near moving traffic:
  - Never trust moving traffic!
  - Always look before you move!
  - Always keep an eye on the moving traffic!
- All personnel must exit and enter their units with extreme caution, remaining alert to moving traffic at all times.
  - When walking around fire apparatus or emergency vehicles, be alert to proximity to moving traffic.
  - Stop at the corner of the unit, check for traffic, and then proceed along the unit remaining as close to the emergency vehicle as possible.
  - Maintain a "reduced profile" when moving through any area where a minimum buffer zone condition exists.

All staff personnel, assigned students, and observers arriving on an apparatus or emergency vehicle must don assigned helmet and vest immediately upon exiting their vehicle and comply with all other provisions of this procedure.

Operations on High-Volume and Limited Access Highways

High-volume and limited access highways are identified as interstate and multi-lane roadways. The Arkansas State Police, the Arkansas Highway and Transportation Department, the Springdale Police Department, and other law enforcement agencies have a legal responsibility to keep traffic moving on these roadways.

When, in the judgment of the Incident Commander, it is essential for personnel and patient safety, the Incident Commander may request to close any or all traffic lanes, shoulders, and entry/exit ramps.

Whenever the need is determined to exist to close an interstate highway, a request must be made to the Arkansas State Police giving the reason for the closing. This should be a rare event.

Operations on high-volume and limited access roadways with multiple lanes have additional unique safety considerations. These include:

- Fire Department units shall not park in the median and walk across open traffic lanes to access an incident.
- First-arriving Engine or Truck Company shall establish an initial block of the lane(s) occupied by the involved vehicle(s) plus one additional traffic lane.
- Traffic cones shall be deployed on high-volume and limited access roadways.

- Cones should extend approximately 150 feet upstream of the apparatus to allow adequate warning of motorists. As always, personnel shall place cones and retrieve cones while facing the traffic.

- Squads shall always be positioned within the protected work zone.
  - An adequate size multi-patient loading area must be established.
- Command should consider staging additional apparatus and Squads off the highway until needed.
  - Additional Squads may be brought into the scene as needed.
- Command should establish a liaison with the Police Agency having jurisdiction as soon as possible.
  - Jointly coordinate an effective protected work zone.
  - Police Department vehicles should provide blocking of additional traffic lanes as needed.
  - Identify how to most efficiently terminate the operation and re-establish normal traffic flows.

The Incident Commander shall manage the termination of the incident aggressively.

- Personnel, equipment, and apparatus must be removed from the highway promptly to reduce exposure to moving traffic and traffic congestion is minimized.